

**AMENDMENTS TO THE SPECIFICATION:**

**Please replace paragraph 0017 of the Specification with the following  
amended paragraph 0017:**

[0017] Both chemical and mixing liquid feed apparatus 100 extend to the nozzle casing 80 from above through the openings 98 and 90 in the ends 96 and 94 mentioned above. These feed apparatus include among other things a chemical feed duct [[142]]102 which has a flow connection with the chemical conduit 56 and a mixing liquid feed duct 104 which in turn communicates with a mixing liquid feed conduit 162, which in this embodiment is located centrally inside the chemical feed duct 102; the feed ducts 102 and 104 being attached to each other at the upper end. The chemical feed duct 102 is preferably cylindrical for the most of its length as in this embodiment it functions at the same time as a piston rod of the pressure medium cylinder 92. A piston disc 106 sealed relative to the pressure medium cylinder 92 and secured to the outer surface of the chemical feed duct 102 has been provided to serve as the piston itself. Naturally both the ends 94 and 96 of the pressure medium cylinder 92 have been provided with suitable sealing to ensure the operation of the cylinder.

**Please replace paragraph 0024 of the Specification with the following  
amended paragraph 0024:**

[0024] In this embodiment of the invention the ~~chemical~~mixing liquid feed duct 142 has at the lower end of it, in other words at the end facing the fiber suspension flow duct 70

and extending inside the nozzle casing 80, a conical converging portion 148 which is essentially located at the conical portion 82 of the nozzle casing 80 and its coning angle is of the same order as that of the conical converging portion 82 of the nozzle casing 80. The conical converging portion 148 of the mixing liquid feed duct 142 does not extend quite to the lower end of converging portion 82 for the feed liquid but the feed duct continues preferably as a cylindrical duct 116 inside the feed opening 84 whereby the cross-sectional flow area between these parts reduces in the flow direction caused an increasing in the flow velocity of the feed liquid. The flow velocity of the mixture of the chemical to be fed into the process liquid flowing in the process liquid flow duct 70 and the feed liquid is at the feed moment at least five [[time]]times the speed of the process liquid flow.

**Please replace paragraph 0025 of the Specification with the following amended paragraph 0025:**

[0025] The cylindrical duct 116 at the lower end of the mixing chemical feed duct 142 ends at the nozzle part 150 which provides the mixing space 154 isolated from the feed liquid and the flowing process liquid required for the chemical mixing and from which the chemical solution (a mixture of chemical and mixing liquid) is at first fed via openings 152 to the feed liquid flow and further by means of the feed liquid in an even flow to the liquid flow duct 70. The isolated mixing space 154 in the nozzle part 150 is formed for example of a cup-like "closed" end 156 of the mixing liquid flow duct 142 and of the openings 152 provided at its sides. The openings 152 have been provided in

the wall of the flow duct 142 above the mixing space 154 of the nozzle part 150. Via the openings 152 the mixing liquid and the chemicals mixed into it are discharged practically in a radial fan-like flow to the feed liquid. The openings 152 may have a round, angular or for example slot-like configuration only to mention a few examples. The thin pipe-like chemical feed duct 162 extends to the end 156 of the nozzle part 150, preferably past the openings 152. This embodiment guarantees a good chemical mixing result as the chemical jet hits the end of the nozzle part 150 and is from there ~~dispersed~~dispersed evenly to the entire mixing liquid volume and further via openings 152 to the liquid flow duct 70. The mixing and the dilution of the chemical thus take place before the feeding to the process liquid by means of the feed liquid. This ensures that precise chemical amounts are mixed into the whole cross-sectional flow area of the process liquid.

According to another preferred embodiment of the invention a kind of an additional, for example conical, counter piece has been provided, if necessary, in the end of the chemical feed duct 162 quite in the center of it whereby, when hitting it, the chemical jet is dispersed and mixed even more efficiently. Another alternative is to design the end cup 156 of the duct 142 so that it divides the chemical flow coming from the duct 162 evenly to different sides of the duct 162 for example by providing the bottom of the end cup at a central position relative to the duct 162 with a conical or corresponding bulge converging towards the duct.